**DIRECT TESTIMONY OF**

**MICHAEL D. SHINN**

**ON BEHALF OF**

**SOUTH CAROLINA ELECTRIC & GAS COMPANY**

**DOCKET NO. 2014-2-E**

**Q. PLEASE STATE YOUR NAME, BUSINESS ADDRESS AND CURRENT POSITION.**

A. My name is Michael D. Shinn, and my business address is 220 Operation Way, Cayce, South Carolina 29033. I am currently employed by SCANA Services, Inc. as General Manager of the Coal and Oil Procurement Department ("Fuel Department"). In this position I manage the purchase and delivery of coal, No. 2 fuel oil, and limestone on behalf of South Carolina Electric & Gas Company ("SCE&G" or the "Company") and as agent for South Carolina Generating Company ("GENCO").

**Q. DESCRIBE YOUR EDUCATIONAL BACKGROUND AND YOUR BUSINESS EXPERIENCE.**

A. I earned a Bachelor of Science Degree in Mechanical Engineering from the University of South Carolina in Columbia, South Carolina, in 1995. While in college, I was a student intern in the Fossil Hydro Power Plant Performance Group for five years. Since graduation, I have held various positions within the Fuel Department to include managing rail transportation and delivery, spot coal purchasing, coal quality management, synthetic fuel optimization, and state and federal regulatory reporting. In my most recent position as Manager of Fuel Technical Services, Industrial Coal and Synfuel, I have worked with coal suppliers and SCE&G's power plants to increase fuel and transportation flexibility as well as maximize the utilization of the Company's assets. In December 2009, I was promoted to my current position and report directly to the Senior Vice-President, Fuel Procurement and Asset Management, SCANA Services, Inc.

**Q. WHAT IS THE PURPOSE OF YOUR TESTIMONY?**

A. The purpose of my testimony is to describe the procurement and delivery activities for coal and No. 2 fuel oil used in electric generation for SCE&G as well as GENCO's Williams Station for the period January 1, 2013, through December 31, 2013 (the "Review Period"). I also discuss changes that have occurred in coal markets since the last annual fuel adjustment hearing and how these changes affected coal procurement during the Review Period. Finally, I describe the procurement and delivery of limestone for our wet scrubbers located at the Wateree and Williams steam plants.

**Q. PLEASE DESCRIBE GENCO AND ITS RELATIONSHIP TO SCE&G.**

A. GENCO was incorporated on October 1, 1984, and owns Williams Electric Generating Station. GENCO sells to SCE&G the entire capacity and output from Williams Station under a Unit Power Sales Agreement approved by the Federal

Energy Regulatory Commission. Hereafter, when I refer to SCE&G's fossil steam plants, I include GENCO.

**Q. PLEASE SUMMARIZE SCE&G'S FUEL PROCUREMENT NEEDS AND PURCHASING PRACTICES.**

A. The Fuel Department purchases all coal, No. 2 fuel oil, limestone, and associated transportation for SCE&G's fossil plants focusing on reliability of supply, conformity with operational and environmental requirements, and reasonable prices. Given its mix of generation assets, SCE&G has significant need for coal in any given year to provide reliable energy service to our customers. In 2013, for example, SCE&G consumed 4,022,645 tons of coal in the production of electricity for its customers. This amount was 701,103 tons of coal less than the Company burned in 2012, which is a reduction in the burn rate for coal of 14.8% using a year-over-year comparison. This reduction in the burn rate primarily resulted from a relatively mild summer, the complete retirement of coal-fired units at Canadys Station, the conversion to natural gas of a coal-fired unit at Urquhart, and an increased reliance on gas-fired units due to relatively low gas prices.

**Q. DO YOU EXPECT THE BURN RATE FOR COAL TO CONTINUE TO DECLINE IN 2014?**

A. No. In fact, the Company projects that its burn rate for coal in 2014 will be approximately 4,315,372 tons, representing an increase of 6.8% when compared to the burn rate in 2013. There are several reasons underlying this projected increase in coal consumption. Importantly, there is a planned refueling outage for the V.C. Summer Nuclear Plant, and there are major maintenance outages planned for the Company's combined cycle gas turbines. Also, so far this winter, the weather has been colder than normal, and natural gas prices have been higher than projected. As a consequence, coal is projected to be a more competitive and, at times, more economic fuel during 2014.

**Q. HOW DOES THE COMPANY SECURE NECESSARY QUANTITIES OF COAL AND NO. 2 FUEL OIL AT COMPETITIVE PRICES?**

A. SCE&G maintains an active list of qualified suppliers of coal and No. 2 fuel oil. Typically, as contracts expire or needs are identified, solicitations are issued for competitive sealed bids. Responses to these solicitations inform our knowledge of market demand and prices. Moreover, because the responses to these solicitations often include proposals for coal supplies with specifications different than the requested specifications, these responses also aid our ongoing efforts to ascertain price differences for varying qualities of fuels.

**Q. HOW DOES SCE&G APPROACH THE MARKETPLACE FOR COAL AND NO. 2 FUEL OIL?**

A. Coal is procured under long-term (more than one year) and spot purchase (up to one year) agreements to achieve a balance of reliable supplies while maintaining flexibility to react to market changes or short-term system needs. Under normal market conditions, SCE&G seeks to have long-term purchases represent approximately 75% to 80% of projected system demand. Spot purchases provide a mechanism to manage inventories and react to short-term changes in the marketplace, and generally represent 20% to 25% of projected system demand.

While SCE&G's goal has been and remains one of balancing its purchases of coal between long-term and short-term contracts, market conditions and operational demands may alter this goal in any given year. Current market conditions provide an opportunity for the Company to change slightly its mix between coal purchases made under long-term contracts and spot purchases. More recently, forward price curves for coal over time tend to merge lower toward spot prices, rather than spot prices advancing upward toward the forward price curves. This pricing reality is currently providing more favorable outcomes for our customers when the Company makes spot purchases but, as the supply excess in the market is depleted, the pricing benefit of spot purchases outside of our normal range of 20% to 25% is reduced and ultimately may be eliminated.

The Company also entered 2013 needing to reduce its inventory, a need further driven by the planned retirement of coal-fired units at Canadys Station, the conversion to natural gas of the coal-fired unit at Urquhart Station, and an unscheduled outage at Williams Station. Furthermore, natural gas prices remained at very competitive rates for much of the Review Period, making it the fuel of choice for economic dispatch in many circumstances.

In sum, combined operational and market conditions impacted SCE&G's balance of coal purchases in the Review Period, resulting in a greater use on a percentage basis of spot purchases of coal in 2013. In 2014, SCE&G expects to decrease its balance slightly in favor of more contract purchases if market conditions trend as presently expected. In addition, given the availability of expanded purchased power opportunities, the fluctuation in the burn rate of SCE&G's coal plants has the potential to increase. Moreover, any significant changes in the price of coal or natural gas will impact the amount of coal burned by the Company and, thus, the amount of coal that must be purchased on a spot basis. However, the Company will continue to evaluate market conditions carefully, always seeking to purchase coal supplies for our customers at economically reasonable prices while ensuring that the Company's service commitments are reliably and prudently met.

In contrast to the complexities of coal purchasing contracts, contracts for No. 2 fuel oil are requirements contracts that are competitively solicited every two years. Generally, pricing for these contracts is based upon market indices that are adjusted daily.

**Q. PLEASE SUMMARIZE THE TERM OF THE COMPANY'S COAL PURCHASES DURING THE REVIEW PERIOD.**

A. The Company took delivery of 2,020,663 tons of coal under long-term agreements and approximately 1,424,376 tons of coal through spot purchases during the Review Period. All together, long-term agreements provided 59.0% of the requirement for the Company's coal-fired stations, while spot purchases accounted for the remaining 41.0% of SCE&G's coal requirements during 2013.

**Q. FOR 2014, PLEASE EXPLAIN THE COMPANY'S CURRENT PLANS FOR ADDRESSING ITS NEEDS FOR COAL SUPPLIES UNDER LONG-TERM CONTRACTS.**

A. The Company currently has long-term contracts with seven suppliers for the delivery of 2.8 million tons of coal. This quantity represents approximately 64.3% of SCE&G's expected total coal receipts for 2014. The coal purchased under these contracts ranges in quality from 12,300 to 12,600 British Thermal Units ("BTU") per pound and sulfur content from 1.0% to 1.6%. Most of these contracts are for an initial period of two years with some options to renew. The amount of coal under contract will vary from year to year, and the contract terms will vary from contract to contract. For example, in some of our coal contracts, we have been successful in negotiating fixed pricing for the term of the contract, while other coal contracts contain predetermined price adjustments.

It should be noted that a majority of the Company's term contracts executed during the Review Period were two-year instead of three-year contracts. Although we have had limited success in procuring three-year contracts, the overall pricing for Central Appalachian ("CAPP") coal has been depressed such that most suppliers will not enter into the traditional three-year contract due to the fact that their projected production costs and contracted cost are substantially similar.

During 2014, the Company will continue to carefully evaluate its need for coal in future periods. In 2014, we anticipate that SCE&G will negotiate additional commitments for coal supply for 2015 and beyond to achieve a reasonable balance between coal supplied under long-term contracts and spot purchases.

To fulfill its future requirements, the Company may choose to negotiate with existing coal suppliers to extend or renew existing long-term contracts, may choose to negotiate directly with other suppliers seeking new contracts, or may decide to issue a general solicitation for some or all of its needed long-term supply. The Company's goal is always to provide our customers with reliable coal-fired generation at reasonable fuel prices. We have worked diligently in the past to achieve this goal, and will continue to do so in 2014 and beyond.

**Q. HOW DOES SCE&G ENSURE THAT THE RIGHT QUANTITY OF FUEL SUPPLIES IS AVAILABLE TO MEET GENERATION DEMANDS?**

A. SCE&G uses several steps to bring the fuel supply and demand factors together. Fuel usage levels are calculated and forecasted for each of the generating plants. Coal and No. 2 fuel oil inventories are then validated and contract quantities are summed and compared against system usage to determine needs going forward. With this information, the Fuel Department carefully evaluates the Company's coal requirements and determines whether transportation options under current contracts, spot purchases, or additional long-term agreements are appropriate. Through this process, SCE&G has been successful in leveraging long-term and short-term coal purchases to achieve reasonable purchase prices while ensuring the reliability of coal supplies necessary to support system needs.

No. 2 fuel oil is purchased to ensure adequate back up to natural gas for SCE&G's intermediate and peaking generators. Typically, fuel storage tanks are filled going into peak usage periods.

**Q. HOW DOES THE COMPANY DETERMINE A "REASONABLE PRICE" FOR FUEL PURCHASES?**

A. The Fuel Department works diligently to achieve an optimization between adequate supplies of acceptable quality at reasonable purchase prices. The ultimate value of the delivered fuel (coal or No. 2 fuel oil) is determined by the actual delivered cost per Million British Thermal Units ("MMBTU"), accounting for any fuel impacts in the operation of our generating plants. Market prices fluctuate due to such things as seasonality, political turmoil, national weather trends, and domestic/international supply/demand imbalances. SCE&G continuously evaluates factors that impact prices, while employing contract strategies such as predetermined price adjustments, price collars, and quarterly adjustments to mitigate the effect market conditions have on coal contracts. Market publications, indices, industry solicitations, trade associations, and interacting with market participants are some of the ways that we stay abreast of market trends and conditions.

**Q. HOW DOES THE COMPANY MANAGE COAL INVENTORIES TO ENSURE RELIABILITY AND AVAILABILITY?**

A. To maintain adequate supply at its coal-fired generating facilities, the Company continuously manages inventories using long-term contracts, spot market purchases, and transportation options. The Company used these tools in support of its efforts to maintain an inventory of approximately 853,000 tons of coal based on the average of each of 12 months' ending inventories to support anticipated consumption during the Review Period. This methodology also allowed for an inventory of more than 853,000 tons at the beginning of high demand periods and less than 853,000 tons entering the milder months. This inventory level aids in protecting SCE&G against lack of coal availability, production, and delivery problems that may arise from time to time. It is also an immediately available resource to meet our supply needs when short-term market prices are unfavorable. It is always important to balance short-term needs against long-term requirements and expected future operating conditions.

The Company expects to further reduce its inventory goal to approximately 782,000 tons in future periods. As discussed above, the complete retirement of the coal-fired units at Canadys and the conversion of Urquhart No. 3 to natural gas continue to reduce the Company's coal inventory needs in future periods. This reduced inventory goal will be achieved by burning down existing inventory levels and managing the Company's purchases of coal under both long-term and spot purchase contracts in 2014 and beyond.

**Q. PLEASE PROVIDE AN OVERVIEW OF TRANSPORTATION SERVICES DURING THE REVIEW PERIOD.**

A. In 2013, CSX Transportation, Inc. ("CSX") remained the primary rail transporter of coal for SCE&G. While the CSX contract rates remained relatively stable during 2013, the rates were subject to quarterly adjustments according to indices published by the American Association of Railroads. SCE&G took delivery of approximately 2.8 million tons of coal under this rail contract during 2013, representing 81.9% of the Company's total receipts of coal.

The Company also has a contract with Norfolk Southern Railway Company ("NS" or "Norfolk Southern"). Norfolk Southern has only one delivery point in SCE&G's system, and deliveries under this NS contract represented 18.1% of the Company's total receipts in 2013. While the Company will use approximately the same amount of rail services provided by NS in 2014, it will be unable to take more deliveries on Norfolk Southern in 2014 due to minimum transportation requirements under the now existing rail contract with CSX. SCE&G will continue to explore opportunities to utilize transportation options to reduce costs to our customers.

**Q. DURING THE REVIEW PERIOD, DID SCE&G RENEGOTIATE ITS CONTRACTS WITH CSX OR NS?**

A. No. The current contracts were negotiated in 2012 and were effective the entire year of 2013. However these contracts were shorter in term than in the recent past and both will expire December 31, 2014. Contract discussions with both CSX and NS will commence early in 2014 to take full advantage of any competitive delivery method to our coal burning plants. The new contracts are anticipated to become effective January 1, 2015.

**Q. PLEASE DESCRIBE THE STATE OF THE INTERNATIONAL COAL MARKET IN WHICH SCE&G PARTICIPATES AND ITS CURRENT PLANS REGARDING IMPORT COAL.**

A. International coal prices have remained fairly stable in 2013. International coal production has increased and continues to meet the international demand. During the Review Period, CAPP coal was transported to East Coast ports for export business primarily due to domestic railroads lowering transportation rates, thereby allowing the fuel to be competitive in international markets. Export projections for the forecasted period show signs of weakening moving into 2014 as a result of reduced foreign demand for domestic coal. This weakening demand in foreign markets coupled with decreasing demand in domestic markets is projected to maintain domestic coal prices at or near current levels in the short-term and, depending on weather conditions, these prices are expected to remain relatively stable.

The reduced domestic demand and fluctuating global markets have had a detrimental impact on the CAPP coal producers, forcing many to lay off employees, retire assets, and close (both short- and long-term) mines that either supply the Company or have supplied the Company with coal in the recent past. With the expansion of eastern utilities into non-traditional coal basins and the proliferation of combined cycle gas generation, the outlook for domestic CAPP suppliers is challenging. Millions of tons of coal production have been taken offline in the last couple of years due to the reasons noted above, and it is expected that more coal production will be retired in 2014.

Recently, given the supply and demand balance in the international markets for both thermal and metallurgical coal, SCE&G has determined that prices for import coal have become competitive for delivery to Williams Station located in Charleston, South Carolina. The Company will continue to monitor and remain informed of price changes in foreign markets to ensure that SCE&G and its customers may take advantage of delivered competitive prices in these markets if they occur.

**Q. WHAT WERE SCE&G'S DELIVERED COAL COSTS FOR THE REVIEW PERIOD?**

A. SCE&G's average cost in dollars per MMBTU by month in 2013 for coal purchased for steam plants during the Review Period is set forth below in Table 1.

Table 1

| Jan. | Feb. | Mar. | Apr. | May | June | July | Aug. | Sept. | Oct. | Nov. | Dec. |
|---|---|---|---|---|---|---|---|---|---|---|---|
| $4.35 | $4.22 | $4.14 | $4.24 | $4.05 | $4.23 | $4.22 | $4.25 | $4.40 | $4.38 | $4.05 | $4.03 |

**Q. WHAT CHANGES DOES THE COMPANY ANTICIPATE IN THE COAL MARKET FOR THE 2014 FORECASTED PERIOD?**

A. SCE&G's coal prices for the forecasted period are expected to remain stable or trend downward slightly due to projections that we may increase spot coal purchases at prices below our long-term contract prices. For example, over the past 12 months, the price per ton of CAPP coal increased from $60.75 per ton on January 7, 2013, to $66.75 per ton on December 31, 2013, representing approximately a 9.0% price increase. Spot coal prices have been trending downward early in 2014 to approximately $ 63.50 per ton. While we do not expect any further substantial reduction in prices in 2014, we believe spot prices will remain relatively stable.

Global demand for coal, particularly metallurgical coal used to produce steel, has resulted in fluctuations in price and production of both domestic metallurgical and thermal coal in the recent past. Despite the recent downturn in demand in international markets, the long-term trend is for coal consumption in foreign markets to grow. This growth in part reflects the ongoing shift from nuclear generation to coal-fired generation of electricity in some European countries, and the continued trend for coal as the fuel of choice in developing economies. However, even with the projected long-term growth of coal consumption in European as well as Asian markets, the increased use of natural gas for power generation and decreased industrial demand for coal domestically will continue to force coal companies in the United States to reduce production to conform to overall reduced demand for coal as an energy source.

Other factors that will continue to affect CAPP coal prices are a dwindling coal reserve base, greater regulation by the Environmental Protection Agency ("EPA") and Mine Safety and Health Administration ("MSHA") and the redeployment of capital dollars away from coal mining. These mounting issues will lead to a more limited ability to borrow money for recapitalization of mines in general, and the inability of mining companies to acquire new mining permits. These factors will continue to put upward pressure on coal production costs during 2014 and beyond. Notwithstanding these upward pressures, the Company expects coal prices to remain relatively stable in 2014. This expected stability in coal prices in 2014 is driven primarily by the low cost of natural gas, new combined cycle gas generation coming online outside of SCE&G's service area, and continued decommissioning of coal consuming power plants, which results in reductions in the demand for coal.

**Q. WHAT HAS BEEN THE RECENT PRICING TREND IN THE NO. 2 FUEL OIL INDUSTRY?**

A. Delivered No. 2 fuel oil average monthly prices during the Review Period ranged from a high of $25.78/MMBTU in November 2013 to a low of $21.54/MMBTU in June 2013. This pricing was comparable to 2012 reflecting changes in the globally traded market for oil futures.

Set forth below is Table 2 that shows the average system delivered No. 2 fuel oil prices in dollars/MMBTU for the Review Period for No. 2 fuel oil purchased for steam plants, gas turbines, and combined cycle units.

Table 2

| Jan. | Feb. | Mar. | Apr. | May | June | July | Aug. | Sept. | Oct. | Nov. | Dec. |
|---|---|---|---|---|---|---|---|---|---|---|---|
| $24.29 | $24.94 | $23.94 | $22.31 | $21.92 | $21.55 | $23.02 | $23.92 | $23.61 | $22.98 | $25.78 | $23.15 |

**Q. WHAT ADDITIONAL STEPS IS THE COMPANY TAKING TO MITIGATE FUEL-RELATED EXPENSES?**

A. SCE&G continues to expand its coal specifications by purchasing coal of lower quality where practicable and acceptable to a coal-burning plant. During 2013, SCE&G took delivery of 292,974 tons of coal with contracted BTU per pound values less than the Company's traditional specifications. A substantial portion of this coal was blended and consumed at SCE&G's Cope Station.

SCE&G is also evaluating the fuel flexibility for all of its coal-fired plants. This evaluation considers fuels from different regions of the United States and South America with multiple sulfur, ash, and BTU levels. Currently, transportation rates, and in some cases original plant design, lead to a situation in which coal from other basins is non-competitive with CAPP coal due in large part to significant differences in coal qualities that could impact plant operations.

In 2013, SCE&G performed two test burns of coal types. Approximately 24,935 tons of lower BTU CAPP coal was test burned at Cope Station from two separate suppliers. More tons have been purchased in 2014 and will continue to be purchased to the extent it provides value and is acceptable to reliable plant operations.

**Q. WHAT RESPONSIBILITIES DOES THE FUEL DEPARTMENT HAVE WITH RESPECT TO $SO_2$ AND $NO_X$ ALLOWANCES?**

A. The Fuel Department purchases or trades EPA sulfur dioxide ("$SO_2$") and nitrogen oxides ("$NO_x$") emission allowances as needed by SCE&G to compensate for its $SO_2$ emissions. $SO_2$ emission allowance prices stabilized during the Review Period due to the increased reliance on natural gas for electric generation and the addition of scrubbers in the industry, as well as continued uncertainty over EPA modifications to environmental regulations for the utility industry. $SO_2$ allowances are approximately $3.00 per allowance (one ton $SO_2$) currently. SCE&G anticipates that this cost will continue to remain stable in the near-term.

The Fuel Department also addresses the Company's needs for $NO_x$ emission allowances. Current annual $NO_x$ allowance prices are approximately $25 per ton.

**Q. PLEASE EXPLAIN THE FUEL DEPARTMENT'S ACTIVITIES RELATED TO THE PROCUREMENT OF LIMESTONE FOR SCE&G'S POLLUTION CONTROL FACILITIES.**

A. The Fuel Department is responsible for securing adequate and reliable supplies of limestone for the effective operation of wet limestone scrubbers at the Company's Wateree and Williams Stations. There are limited suppliers for limestone for Williams and Wateree Stations. During the Review Period, the Company acquired all of its supplies of limestone from a single source, which has proven to be effective and market priced.

The limestone is delivered to Williams and Wateree Stations by truck since the current source of supply is located near the plants. In summary, the Company continues to evaluate supply and transportation options designed to ensure adequate and reliable supplies of limestone at reasonable prices at its Williams and Wateree Stations.

**Q. PLEASE PROVIDE THE COMMISSION WITH AN UPDATE CONCERNING LEGAL ACTION TAKEN BY SCE&G AGAINST SOME OF ITS COAL SUPPLIERS.**

A. In 2009, the Company initiated legal action against several of its coal suppliers for non-performance. The Company's claims against all suppliers have been settled or litigated before the American Arbitration Association with net benefits applied to reduce fuel costs when the benefits were realized. As of December 31, 2013, all of the claims instituted by the Company against its coal suppliers have been resolved.

**Q. WHAT REQUEST DOES SCE&G MAKE OF THE COMMISSION IN THIS PROCEEDING?**

A. The Coal and Oil Procurement Department has made reasonable and prudent efforts to obtain reliable, high quality supplies of coal, No. 2 fuel oil and limestone and associated transportation at the lowest possible cost to SCE&G's customers. Therefore, on behalf of SCE&G, I respectfully request that the Commission find that the Company's fuel purchasing practices were reasonable and prudent for the Review Period.

**Q. DOES THIS CONCLUDE YOUR TESTIMONY?**

A. Yes.